

Date: February 13, 2022

To: Planning Board

From: Cindy Arens/Clean Heat Alliance

Cc: Sheila Page

Re: Response to Staff Comments - Public Hearing for Article 40 - Citizen Petition

Please find below responses to the February 11 Land Use, Health and Development staff comments memo.

**Staff Comment:**

*Town Counsel Review*

Town Counsel reviews all zoning to be sure that the zoning amendment process has been followed per state law and that the proposed zoning is within scope of the submitted warrant language. Town Counsel does comment and make suggestions to reduce ambiguities and to reduce litigation risk. Town Counsel does not opine on Town policy that the proposed petition implements nor on the legality of the bylaw as that is reviewed by the Attorney General's Office and then ultimately by the Courts.

**Clean Heat Response:**

Agreed. The Attorney General's Office has approved incentive zoning in Lexington for regulating the combustion of fossil fuels in buildings in a commercial district in March 2021. Additionally, there is no known litigation that has been brought against the city of Somerville as a result of their 2019 incentive zoning ordinance that regulates the combustion of fossil fuels in buildings. In our discussion with Atty. Makarious, he has indicated he would be comfortable defending this proposal.

**Staff Comment:**

*Building Code Concerns*

MGL 40A Section 3 states "No zoning ordinance or by-law shall regulate or restrict the use of materials, or methods of construction of structures regulated by the state building code," ..... "No zoning ordinance or by-law shall regulate or restrict the interior area of a single family residential building..."

6.13.3 (1) of the proposed by law appears to regulate appliances internal to the building. This may not be allowable under state law. For houses of a certain GFA the bylaw prohibits indoor fossil fuel and lighting. There is strong concern amongst staff that this proposed by law does conflict with zoning.

**Clean Heat Response:**

In addition to the prior Attorney General Office zoning bylaw approval and lack of litigation related to the Somerville zoning ordinance referenced above, Town Counsel has indicated that this proposal is not preempted by state building code.

**Staff Comment:**

How is indoor or outdoor lighting be related to fossil fuel?

**Clean Heat Response:**

The requirement references lighting that combusts fossil fuel to generate a flame to generate the light. This can be observed in the outdoor lighting of 27 Clarke St.

**Staff Comment:**

The Lexington bylaw HERS rating excludes solar applications. The Building Code HERS rating does include 5 points for solar pv systems installed. This creates a one-off that the building community is not used to. This seems to be in direct conflict with the building code. This potential confusion is one of the reasons why there is a uniform building code. HERS scoring method should follow the building code method.

Clean Heat Response:

There are standard HERS reports that include the HERS rating both with and without the projected reduction of energy use from an installed solar energy system. A certified HERS rater is required to understand this. As more than 99% of new construction today does not include solar energy systems, it is acknowledged that this is not something apparent in most HERS reports today. The standard proposed is very simple and requires performance better than state code only in the case of larger buildings.

Staff Comment:

*HERS Rating*

A HERS rating of 47 in Tier one and 42 in Tier two is difficult to achieve. Typically, the larger the house the easier it is to achieve a low HERS score. The building community is not prepared to achieve that score as HERS score of 42 or 47. It is suggested that the building code HERS rating of 55 be used.

Clean Heat Response:

Analysis of the most recent new construction in Lexington shows that there's not a clear correlation between the size of home and the final HERS rating. It also shows that almost ½ of new construction is already meeting a HERS rating of 47 or lower. Further, input from HERS raters and analysis of HERS calculations, show that use of high efficiency heat pumps can lower HERS ratings by about 5 points. This would result in greater than 80% of recent new construction meeting the Tier 1 HERS requirement and greater than 40% of recent new construction meeting the Tier 2 HERS requirement. Further, [recent analysis from DOER](#) has shown that heat pumps, good air sealing and ventilation is "all that is needed" to reach HERS ratings of 42-45. The HERS requirement will merely lift some new construction to the level of the better construction happening in Lexington today.

Staff Comment:

A HERS rating estimate is submitted with the building permit application. At the time of Certificate of Occupancy, a HERS rating is certified. If the project is certified above the allowable rating, what is the recourse? Under the proposed zoning, the developer or homeowner will need to apply for a special permit through the ZBA. The ZBA is not obliged to grant a special permit for extra GFA.

Clean Heat Response:

The design and construction of homes is based on the foundation of measurement, meeting a range of dimensional controls and other requirements. If homes are built too tall or too close to a lot line, either the structure has to be modified to comply or the ZBA must be engaged. It is expected to be no different with this proposal. There already exists the practice of engaging HERS raters early in the process to generate proposed HERS ratings to understand what design choices will meet the requirements.

Staff Comment:

A low HERS rating is difficult to achieve. There is often not a fix once the building is built; especially the lower the HERS rating the more difficult to achieve each point. The developer will be on their own to conduct interim HERS reviews to be sure the 47 or 42 HERS score is achieved. Interim HERS ratings are not currently not part of the inspection process.

Clean Heat Response:

Given the DOER's analysis referenced above and the significant number of homes that would be expected to meet these lower HERS ratings by merely using electric heating sources, there does not appear to be evidence that these levels of HERS ratings will be difficult to achieve.

**Staff Comment:**

*Solar Ready / Solar Installation*

Section 6.13.3 (2) requires that that Tier 1 houses " Provide an effective solar ready area, free from obstructions, necessary to install a 1.4 watt DC per square foot of gross floor area or greater solar energy system..." Given the proximity to adjacent buildings, landforms and trees this may not be achievable. An exemption for obstructions is provided in Tier 2 but to get to Tier 2 the provisions of Tier 1 must be achieved. An exemption should be provided in Tier 1.

**Clean Heat Response:**

The intent was to show an area (shaded or not) that can provide the appropriate size solar system. As shading can change over time, there could be a time in the future (post-construction) in which a solar system could be effectively installed in the solar ready area. However, the same exemption can be added to Tier 1.

**Staff Comment:**

Given the importance of trees and the size of some lots, it is not clear that with the Tier 2 exemption is viable on all lots. A variance from the ZBA would be needed. The bar set for a variance by state law is difficult to overcome.

**Clean Heat Response:**

The Tier 2 requirement provides an exemption for the portion of the roof area that is shaded. In other words, solar would not be required where there is sufficient roof shading. This is independent of the size of a lot.

**Staff Comment:**

Does "free from obstructions" - include chimneys, vents, skylights, etc.?

**Clean Heat Response:**

Yes. Since a solar panel cannot be installed on top of any of these types of roof penetrations, they cannot be part of any identified solar ready area(s) on a roof.

**Staff Comment:**

What happens if orienting the roof for adequate solar pushes the house into the setback, or wetlands? These are not obstructions which prevent sunlight from reaching the roof but are other binding constraints.

**Clean Heat Response:**

There is no requirement for specific siting or orientation of the roof.

**Staff Comment:**

"Provide an effective solar ready area" - is this just "enough" roof based on the size/design? Or does the roof need to be oriented for solar? Clarification is necessary to confirm whether the house must be oriented to achieve the solar ready zone and the 1.4 watt per GFA, or its required only if the house design and plans submitted can accommodate it.

Houses oriented for maximum solar gain rather than oriented towards the street could change the commonly accepted streetscape aesthetic.

**Clean Heat Response:**

There is no requirement for specific siting or orientation of the roof. Perhaps "Identify an effective solar ready area(s)" would provide the clarification sought.

Staff Comment:

*Non-conformities*

The added provision in Section 4.2: “ 2) buildings lawfully in existence or lawfully begun, or to structures subject to a special permit applied for by December 31, 2022, which shall instead be subject to the gross floor area requirements set forth in Table 4.4.2.2 Existing Buildings,” may have some unintended consequences.

The December 31, 2022 effective date needs clarification and should also include building permits. It should be clear whether the cut-off is “applied for and deemed complete” or issued. The following suggested language may work... “lots containing dwellings lawfully in existence but not proposed to be substantially/fully demolished, lawfully begun, or subject to a building permit or special permit applied for by December 31, 2022”

Clean Heat Response:

This looks like acceptable language pending Town Counsel review.

Staff Comment:

In order to prevent partial tear-downs, or developments that leave only the foundation and want to claim the exemption for pre-existing buildings to maintain the existing buildings GFA allowance; a definition of substantial demolition and/or new construction should be included to provide better guidance to as to when the new GFA is triggered.

Clean Heat Response:

There is not an intent to try to prevent partial tear-downs or developments that leave only the foundation from maintaining the existing buildings GFA. Perhaps the current method for staff to issue a New Construction permit vs. an Additions permit (as in the case of 309 Marrett Rd) would be sufficient. However, if staff requests additional clarity in the form of the “substantially/fully demolished” language above or any other clarifying language, collaboration with staff to develop such language would be welcomed.

Staff Comment:

*Fiscal Impact*

A financial impact study should be done. Will this proposal cut revenues for permit fees, assessed values, tax receipts, property values etc? When changes were made to the allowed GFA in 2016 an analysis helped people understand the impact. Many residents are counting on their real-estate asset for their retirement, what would be the expected impact to property value.

Clean Heat Response:

Following the fiscal analysis completed by the Planning Board and Residential Policy Committee in 2016 for the initial Gross Floor Area limit bylaw proposal, the Appropriation Committee wrote in their report to Town Meeting that:

"...the connection between the proposed bylaw and the ultimate impact on tax revenue is full of complex and contradictory linkages all operating in a changing market. It would be impossible to make financial predictions with any useful degree of certainty. Any conclusion about the net financial impact on the Town is speculative, but we feel the proposed bylaw will not dramatically affect tax revenue. Furthermore, the annual volatility that we typically experience for “new growth” from all types of property could easily overwhelm the financial impact from this change."

Additionally, properties have not lost assessed value since the 2016 GFA implementation.

Just 3 days ago, an MLS listed home on a 18,985 sq-ft lot and marketed as, "Yes, a teardown!," sold for \$1.416M which was \$316k over the asking price. The average sale price of over 140 of the most recent newly constructed homes in Lexington is \$2.2M. With this instantiable demand for land and the market bearing record prices, the additional requirements in this incentive zoning proposal are a very small component of these hard costs of projects built today. This proposal is not projected to have a negative effect on property values or revenues.

However, it's important to note that the Town's values are not and should not be solely monetary. There should not be a presumption that a principal method to fund the Town's operation is via maximally assessed property value based on the maximum sized home. That mindset is clearly antithetical to that of making the Town a more equitable and sustainable community by creating and maintaining a larger percentage of smaller, and therefore, lower cost homes.

Staff Comment:

While the Public hearing provides notice to the public it does not allow time to fully analyze, understand the unintended consequences and fix them. Town meeting is not the forum to craft zoning bylaws, Town meeting does not represent all the stakeholder pertaining to zoning.

Clean Heat Response:

State law authorizes Town Meeting, and only Town Meeting, to create or amend zoning bylaws. There have been zoning bylaw proposals that have been through varying levels of stakeholder involvement and passed Town Meeting.